

March 7, 2001

MEMORANDUM FOR: Clifton S. Middleton
Project Director, Survey Section B

Gary W. Thompson
Geodetic Liaison, North Carolina Geodetic
Survey

Lewis A. Lapine
Geodetic Liaison, South Carolina Geodetic
Survey

FROM: Charles W. Challstrom
Director, National Geodetic Survey

SUBJECT: INSTRUCTIONS: Field Reconnaissance for
NORTH & SOUTH CAROLINA FBN/CBN, 2001
(GPS-1554)

BACKGROUND:

The North Carolina and South Carolina Geodetic Surveys (NCGS and SCGS) will be observing stations of the Federal Base Network (FBN) and Cooperative Base Network (CBN) to complete the ellipsoidal and orthometric height components, as established by the National Geodetic Survey (NGS) Strategic Plan, for both the FBN and CBN in the states of North and South Carolina. Requirements for field reconnaissance to be performed by NCGS and SCGS to support the upcoming survey in the two states are outlined below.

The FBN in North Carolina consists of 31 stations. The FBN in South Carolina consists of 18 stations. The CBN in North Carolina consists of 221 stations. The CBN in South Carolina consists of 115 stations. Both the FBN and CBN in the two states will be reconned. Reconnaissance of the CBN in both states will consist of determining which marks are destroyed or no longer suitable for GPS observations and where additional marks are required to fill in "gaps" in the CBN networks.

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In order to meet NGS specifications, each FBN and CBN (if not already a first- or second-order bench mark) must be tied to two different bench marks. Thus, reconnaissance of first- or second-order bench marks suitable for GPS occupation may be required as needed.

Lastly, reconnaissance will be performed at eight tide sites in the two states. Five sites are in North Carolina and are as follows: Duck, Oregon Inlet Marina, Cape Hatteras Fishing Pier, Beaufort (Duke Marine Lab), and Wilmington. Three tide sites are in South Carolina and are: Springmaid Pier, Charleston, and Archer.

At the tide sites, priority should be given to using a mark that is an FBN or CBN station. Next in priority is the primary bench mark (PBM), which is listed first on the accompanying list of sites. If that is not suitable, then the other marks listed should be given priority. If none of those are suitable, then other bench marks at the tide site have preference. If still no marks can be used, a bench mark no further than 2 km from the tide site can be selected. Lastly, if no bench mark within 2 km of the tide site can be used, the site should be skipped and Doug Hendrickson, N/NGS21 (listed under LIAISON), notified immediately.

RECONNAISSANCE SPECIFICATIONS:

Reconnaissance shall consist of a review of existing control, field recovery and mark maintenance, station selection, and compilation of updated station descriptions in standard NGS Blue Book format using DDPROC software. NCGS and SCGS will be responsible for the descriptions.

All reconnaissance should be completed and a final sketch of the project submitted and approved prior to beginning the GPS observations.

LIAISON:

For concerns regarding survey field operations, contact:

William T. McLemore, Jr.
Chief, Field Operations Branch, N/NGS41
SSMC3/Station 8564
1315 East-West Highway
Silver Spring, MD 20910-3282
PHONE: (301) 713-3215, ext. 117
FAX: (301) 713-4327
E-mail: Bill.Mclemore@noaa.gov

For concerns regarding survey design or specifications,
contact:

Stephen J. Frakes (Douglas R. Hendrickson)
Chief, Project Development Branch, N/NGS21
SSMC3/Station 8853
1315 East-West Highway
Silver Spring, MD 20910-3282
PHONE: (301) 713-3194, ext. 111 (ext. 127)
FAX: (301) 713-4316
E-mail: Steve.Frakes@noaa.gov
(Doug.Hendrickson@noaa.gov)

The contact with NCGS is:

Gary W. Thompson
Chief, North Carolina Geodetic Survey
Office of State Planning
Elks Building
121 West Jones Street
Raleigh, NC 27603-1334
PHONE: (919) 733-3836
FAX: (919) 733-4407
E-mail: gary.thompson@ncmail.net

The contact with SCGS is:

Lewis A. Lapine
South Carolina Geodetic Survey
5 Geology Road
Columbia, SC 29212
PHONE: (803) 896-7700
E-mail: llapine@scgs.sc.us

For tide site information, contact:

Mr. Tom Landon
 Center for Operational Oceanographic
 Products and Services
 Requirements and Development Division, N/OPS1
 SSMC4/Station 6409
 1305 East-West Highway
 Silver Spring, MD 20910-3282
 PHONE: 301-713-2897, ext. 191
 FAX: 301-713-4435
 E-mail: Thomas.Landon@noaa.gov

DATA:

All records for this project shall be archived under the title
 "NORTH & SOUTH CAROLINA FBN/CBN, 2001" and accession number
 GPS-1554. Digital files shall be archived under filename
 "ncsc051d.824".

cc: N/NGS - D. Zilkoski*
 N/NGS - S. Misenheimer*
 N/NGS1 - G. Mitchell
 N/NGS11 - S. Cofer
 N/NGS21 - S. Frakes
 N/NGS21 - R. Anderson
 N/NGS21 - D. Hendrickson*
 N/NGS22 - T. Soler
 N/NGS3 - J. Bailey
 N/NGS4 - E. Wade
 N/NGS4 - D. Hoar
 N/NGS41 - W. McLemore
 N/OPS1 - T. Landon
 FGCS Members*
 Dick Woods, South Carolina Geodetic Survey
 Dannie Novak, South Carolina Geodetic Survey
 Charles Geoghegan, South Carolina Geodetic Survey

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